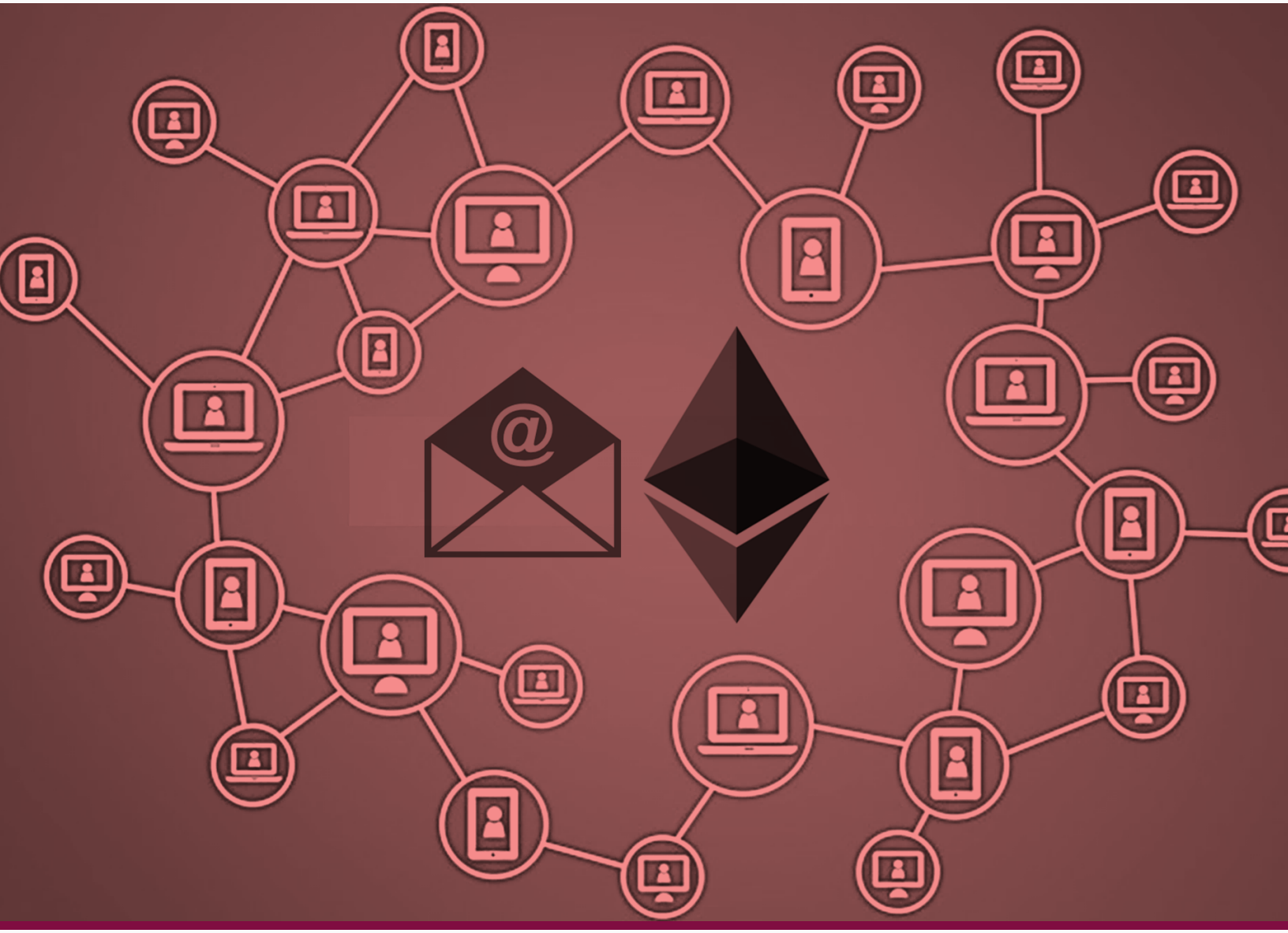
expit

REGISTERED EMAIL



Email is the #1 threat vector used by cyber criminals`

BEC losses are estimated around $12.5 Billion across 131 countries

WITH REGISTERED EMAIL

Decentralized validation is performed by network nodes without the need of intermediaries

Cryptography and blockchains immutability ensures messages are trustworthy

Data redundancy is achieved as each node has a local copy of the blockchain

Can I trust the Email System?

Email is the most ubiquitous method of communication but was not designed with any privacy or security in mind. If we just take the business email statistics, there are 2.5 Billion business email users accounting for 112 Billion emails sent everyday. Today's threats – malware, ransomware, phishing or email fraud – enter through email, costing businesses time and money and often causing irreparable harm to the reputation and brand. Email is the No 1 threat vector used by cyber criminals.

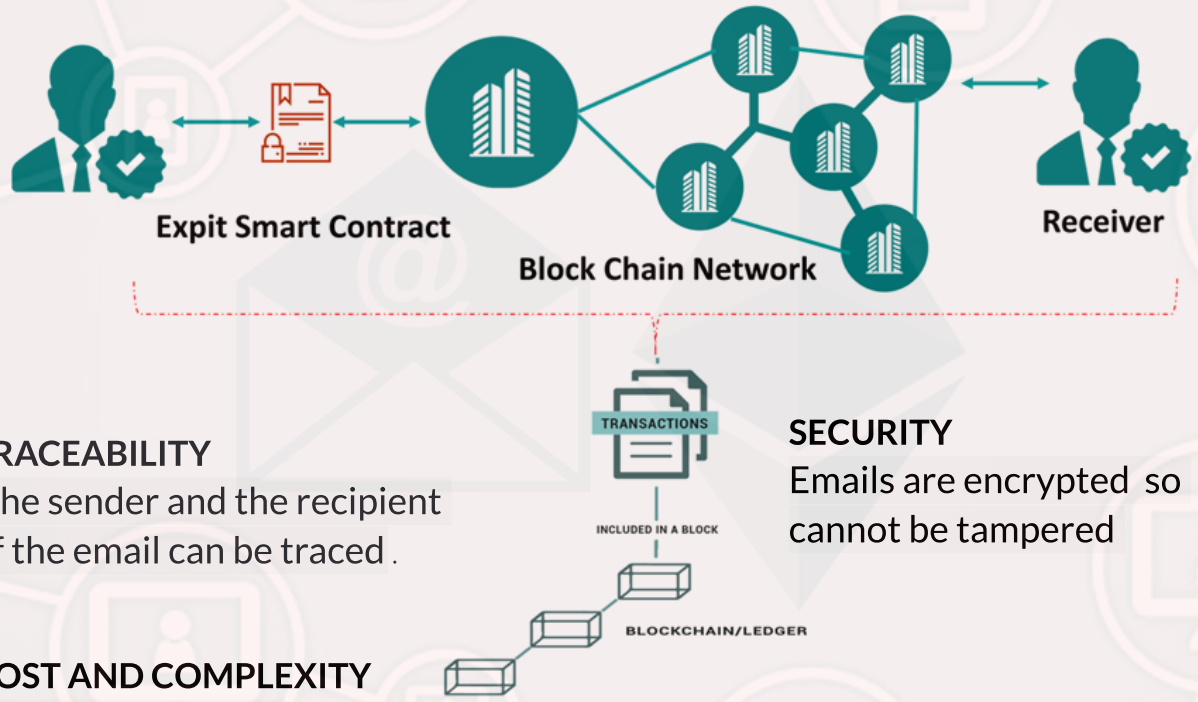
We trust the email system blindly: where it came from, whom it was sent to, and so on. Shockingly there is only one component of an email message that cannot be forged or invented is the network address of the last mail server that handled your message before delivering it to you. Every server that handles your message puts its stamp on it, and while even the other stamps might be faked, the final one is not. Everything else within the message – the date, who it was from, the recipients (even though you received it!), the subject, the body – every other entry can be falsified by the sender, and is a technique frequently used for Phishing or Business Email Compromise (BEC) attacks.

Cybercriminals have been using sophisticated email campaigns to defraud businesses of all sizes through the use of fake invoices, wire transfers, and international payment requests. The scams often rely on compromised email accounts inside a target organization. Between December 2017 and May 2018, BEC campaigns caused more than $12.5 billion in actual and attempted losses around 131 countries globally, including $2.9 billion in the U.S.

Expit addresses these Email challenges with a simple modification to existing emails systems using SMTP by augmenting it with Blockchain as an additional security layer.

Expit Registered Email?

Expit Registered Email solution gives the needed option to the user to send an email through the secured or a regular channel. It gives a platform for the user to not only enhance email security by encrypting them, but also to track and validate email flow in real time. Expit's innovative hybrid mode leverages the existing SMTP messaging platform and adds blockchain technology as an additional security layer. It also helps to provide proof of all email transactions. The user will be able to trace and authenticate their emails, thus significantly reducing spam emails and phishing attacks.



TRACEABILITY
The sender and the recipient of the email can be traced .

SECURITY
Emails are encrypted so cannot be tampered

COST AND COMPLEXITY
Reduces Cost and Complexity

CONFIDENTIALITY
Emails are accessed only by authorized sender/recipient

INTEGRITY
Maintains consistency, accuracy and trustworthiness of emails

How it works?

Expit has developed two distinct components to augment email security

1- An outlook plugin that connects to a Blockchain (in this case the Ethereum Ropsten Testnet)

2- A smart contract on Ethereum

Existing Email System

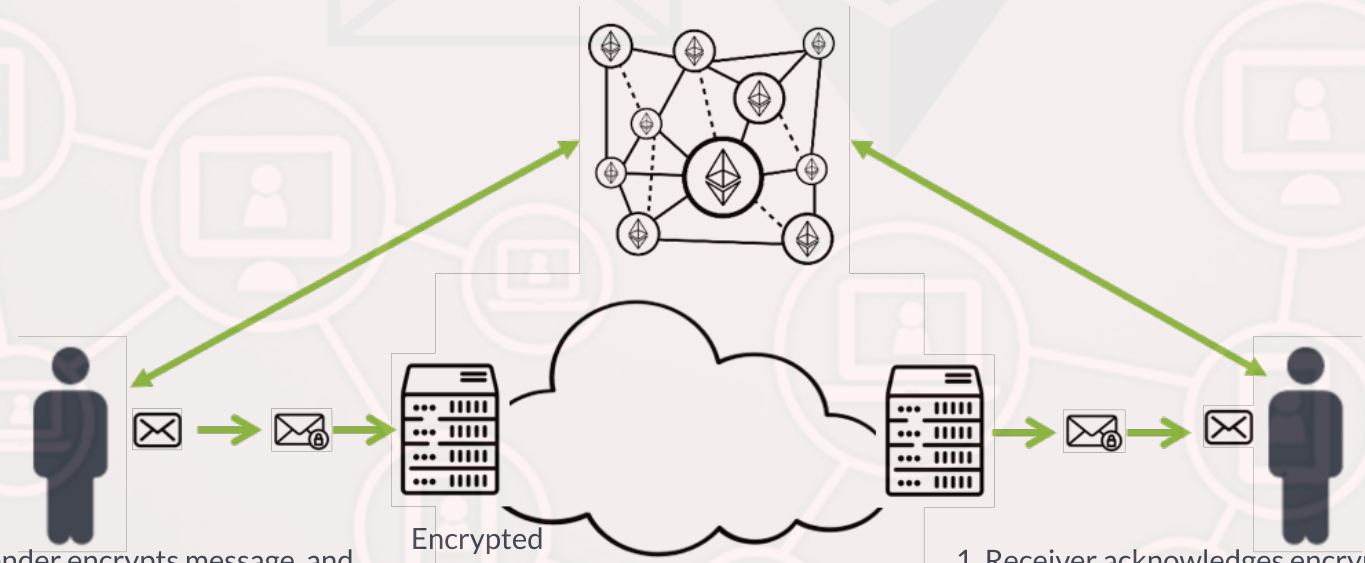
User sends a regular email

Email is routed through the Internet

Receiver has to observe caution

VS.

Expit Registered Email



Sender encrypts message and initiates smart contract via Ethereum network

Encrypted message is sent via regular email

1. Receiver acknowledges encrypted mail along with the hash key
2. Receives the shared key to decrypt the message

About Expit

At Expit we strive to look ahead to anticipate, incubate and prototype new technologies and concepts that will have an impact on business in the long run. In our recent approach for technology adoption, we are focusing on making the Blockchain platform easily accessible so as to leverage its multifold benefits. The existing modes for Blockchain adoption focus primarily on complete adoption of the technology but at Expit we have an alternative view for the application of Blockchain technology, a Hybrid approach.

In most business cases the Hybrid mode is the realistic step forward.

In this mode the existing systems run in parallel to the Blockchain Platform, giving an option to choose one over the other based on business requirements. The adopters of the Hybrid mode benefit from the following:

- Prevent overhauling the existing processes and system which could prove to be expensive and complex
- Adopt a systematic and incremental approach to Blockchain
- Utilize the best of both by enhancing the traditional platform with blockchain technology
- Enable security, anonymity and decentralization features
- Gain technical and competitive advantage at a fraction of the cost